

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MASAAKI FUKUMOTO, AKIRA HIRAIWA,
TADASU UCHIYAMA and NOBORU SONEHARA

Appeal No. 1999-0424
Application 08/298,552

ON BRIEF

Before JERRY SMITH, LALL and DIXON, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 2, 3, 8, 9, 11-17, 21, 23, 24, 26, 30 and 32. Pending claims 4 and 7 have been indicated to contain allowable subject matter. Claims 1, 5,

6, 10, 18-20, 22, 25, 27-29, 31, 33 and 34 have been cancelled.

The disclosed invention pertains to a full-time wearable input device for entering information into an electronic device. More particularly, the invention uses an input device which is attached to the base of the fingers of the hand. The input device senses the typing action of the fingertip on any physical surface and converts that typing action into useful information.

Representative claim 26 is reproduced as follows:

26. A full-time wearable input device for generating input information associated with striking a physical surface with fingertips, said full-time wearable input device comprising:

a shock detecting means, positioned at the base of a finger, for detecting a shock generated and transmitted through the finger when the fingertip of the finger strikes the physical surface, and for outputting a detection signal including a predetermined frequency component generated when the fingertip of the finger mounted with said shock detecting means strikes the physical surface; and

an analyzing means for analyzing a presence or absence of the predetermined frequency component and timing information of the fingertip striking the physical surface, the analysis based on the detection signal outputted from said shock detecting means, and for determining input information.

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The examiner relies on the following references:

Suzuki et al. (Suzuki)	5,029,508	July 09, 1991
Kramer et al. (Kramer)	5,047,952	Sep. 10, 1991
Prince	5,581,484	Dec. 03, 1996

(filed June 27,
1994)

Claims 2, 3, 8, 9, 11-17, 21, 23, 24, 26, 30 and 32
stand rejected under 35 U.S.C. § 103. As evidence of
obviousness

the examiner offers Prince alone with respect to claims 2, 8,
9, 11-13, 21, 23, 24, 26, 30 and 32, Prince in view of Kramer
with respect to claims 14, 16 and 17, and Prince in view of
Kramer and Suzuki with respect to claim 15.

Rather than repeat the arguments of appellants or the
examiner, we make reference to the briefs and the answer for
the respective details thereof.

OPINION

We have carefully considered the subject matter on
appeal, the rejections advanced by the examiner and the
evidence of obviousness relied upon by the examiner as support
for the rejections. We have, likewise, reviewed and taken
into consideration, in reaching our decision, the appellants'

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arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in the claims on appeal. Accordingly, we reverse.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art

as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could

have made but chose not to make in the brief have not been considered [see 37 CFR § 1.192(a)].

We consider first the rejection of independent claims 26 and 32 based on the teachings of Prince taken alone. The examiner finds that Prince teaches all the features of these claims except for the detected signal including a predetermined frequency. Since Prince transmits information using wave energy, the examiner finds that the wave energy would obviously provide a predetermined frequency to a wave energy receiver [answer, page 4].

Appellants make the following arguments with respect to independent claims 26 and 32: 1) appellants argue that the detection means in Prince is not positioned at the base of a finger as claimed; 2) appellants argue that Prince does not detect shock which is generated and transmitted through the finger as claimed; and 3) appellants argue that the carrier frequency of Prince does not meet the predetermined frequency of a shock component as claimed [brief, pages 6-10].

With respect to the first argument, the examiner

responds that the sensor in Prince "is located at the tip of the finger, which is at the base of the finger" [answer, page 8]. Alternatively, the examiner responds that shifting the location of parts is not patentable [id.]. With respect to the second argument, the examiner responds that the measurement of pressure and acceleration in Prince is the same as the claimed shock detection [id.]. With respect to the third argument, the examiner repeats his position that Prince transmits wave energy through pressure sensing means to a computer [id., pages 9-10].

Appellants respond that the sensors in Prince are located at the finger tips and not at the base of the fingers as claimed. Appellants also respond that pressure is not the same as shock. Finally, appellants respond that the placement of the claimed shock detectors at the base of the fingers provides significant advantages not disclosed or suggested by Prince [reply brief].

We agree with appellants' position as argued in the briefs. The claimed invention recites shock detecting means positioned at the base of a finger. The examiner's attempt to

call the tip of the finger the base of the finger defies logic and common sense. Everyone understands that the base of a finger appears at the palm of the hand. The examiner's per se rule that change of location is not patentable is also erroneous. The examiner should not substitute per se rules for a full consideration of obviousness under 35 U.S.C. § 103. The examiner has not properly considered the obviousness of locating the claimed shock detecting means at the base of a finger as claimed.

The examiner's position that the pressure or acceleration sensing means of Prince is the same as the claimed shock detecting means is also erroneous. These variables must be measured differently and have different characteristics as argued by appellants.

Finally, we agree with appellants that the wave energy in Prince is not the same as generating a signal having a predetermined frequency component which is representative of the shock transmitted through the finger when the fingertip strikes a surface.

All of these erroneous findings of the examiner result

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in the examiner having failed to establish a prima facie case of obviousness. Accordingly, we do not sustain the rejection of independent claims 26 and 32. Since the rejection of the independent claims is not proper, the rejection of the dependent claims based on Prince taken alone is also not proper. Since neither Kramer nor Suzuki overcomes the basic deficiencies in the Prince reference, the rejection of claims 14-17 using these additional teachings is also not sustained.

In summary, we have not sustained any of the examiner's rejections of the claims on appeal. Therefore, the decision of the examiner rejecting claims 2, 3, 8, 9, 11-17, 21, 23, 24, 26, 30 and 32 is reversed.

REVERSED

JERRY SMITH)	
Administrative Patent Judge)	
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PARSHOTAM S. LALL)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
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